

### Chowan River and Dismal Swamp Basins

Cause Group Code: K01R-01-BEN Middle Meherrin River

Location: Middle Meherrin River from its headwaters to its confluence with Crupper Run.

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID: 2-MMR008.77 IM - 2012 Bio

Sediment metrics are moderate to low. Filterer FFG dominates spring and fall samples indicating possible nutrient enrichment.

Middle Meherrin River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

11.25

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K01R-03-BEN Finneywood Creek

Location: Finneywood Creek from its headwaters to its mouth on the South Meherrin River

City / County: Mecklenburg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5AFNY004.78 (2005 Probmon)

Impaired Benthic Assessment - Stream runs through a pasture with active cattle access. Flow was minimal, sedimentation was extensive, organic solids were abundant in channel. Minimal habitat present.

Finneywood Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

5.11

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K02R-01-BEN North Meherrin River

Location: North Meherrin River from Couches Creek to unnamed tributary below unimproved road.

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5ANMR007.90 (Bio) 2008-2012 Bio - IM Tied to 2002 FPM

This is a large incised stream with high sediment deposition that appears to flood often. Habitat is sparse and consists mostly of snags, and banks are moderately stable. Water was low for fall 2010 sample. Additional samples in 2012 indicate limited habitat may prevent a balanced community.

5ANMR013.95 (2008 Bio)

IM - This section of the North Meherrin River has incised banks and a high rate of sedimentation. Cobble surfaces in riffles were dominated by periphyton.

North Meherrin River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

10.17

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K02R-03-BEN **Kits Creek** 

Location: Kits Creek from its headwaters to the mouth

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5AKIT000.67 (Bio)

2012 Bio - J - Kits Creek exhibits high seasonal variability. Further sampling is required to accurately characterize water quality within the reach. Spring taxa are dominated by the filtering FFG while fall taxa are more evenly distributed.

5AKIT002.65 (2004-2005 Probmon/2011 Bio)

IM - Limited instream habitat consisted of riffles dominated by bedrock. Excellent riparian zone. Reach may be subject to storm scour due to prevalence of bedrock substrate.

Kits Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.82

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K02R-04-BEN Couches Creek

Location: Couches Creek from its headwaters to its mouth on the North Meherrin River

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5ACHS003.42 (Ambient)

2008 Bio

IM - Cobble riffles were partially embedded. Periphyton was abundant.

5ACHS006.33 (Special Study, Bio)

2008 Ammonia Study

Station located downstream of Victoria West Lagoon. Single violation of the chronic ammonia std

2008-2010 Bio

IM - Couches Creek at this site had marginal habitat with a high rate of sediment deposition. Black fluffy material was present

throughout stream.

Couches Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

7.37

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K02R-04-PH Couches Creek

Location: Couches Creek from its headwaters to its mouth on the North Meherrin River.

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

Station ID:

5ACHS006.33 (Ambient) pH - 2/18 Violation Rate

Couches Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

7.37

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K02R-05-DO Ledbetter Creek

Location: Ledbetter Creek from its headwaters to its mouth.

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Station ID:

5ALDB000.03 (Ambient)

Dissolved Oxygen - 2/12 Violation Rate

Ledbetter Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

9.08

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K03R-01-BEN Flat Rock Creek

Location: Flat Rock Creek from headwaters to the confluence of Kettlesticks Creek.

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5AFRC011.93 (2012 Probmon)

IM - Beaver activity and sedimentation from within the watershed has limited habitat availability.

Flat Rock Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 15.99

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K03R-06-BEN Mason Creek

Location: Mason Creek from its headwaters to the mouth.

City / County: Lunenberg Co. Mecklenburg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5AMSC002.30 (Ambient/Bio)

IM - 2011 Bio

Habitat scores and Taxa lists indicate habitat is a limiting factor in Masons Creek. Collector FFG dominate both samples indicating a slow moving system with detritus inputs.

Mason Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

8.05

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K05R-05-DO Hays Creek

Location: The mainstem of Hayes Creek.

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Hays Creek was assessed as not supporting of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 2/11 at 5AHAY000.38, which is located at the Route 686 bridge.

Hays Creek
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

6.39

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K05R-05-PH Hays Creek

Location: The mainstem of Hayes Creek.

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2010 cycle, Hays Creek was assessed as not supporting of the Aquatic Life Use due to a pH exceedance rate of 5/11 at 5AHAY000.38, which is located at the Route 686 bridge.

Hays Creek
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

6.39

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K05R-06-BEN Little Genito Creek

Location: Headwaters to mouth at Genito Creek.

City / County: Brunswick Co. Mecklenburg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

During the 2010 cycle, Little Genito Creek was assessed as not supporting of the Aquatic Life Use due to benthic impairment at 2008 probabilistic monitoring station 5ALTG001.50.

Little Genito Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

12.05

#### Sources:

Source Unknown



## Chowan River and Dismal Swamp Basins Cause Group Code: K07R-03-BEN Rocky Run

Location: Rocky Run and its tributaries, including Sandy Branch.

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

During the 2008 cycle, Rocky Run was assessed as impaired of the Aquatic Life Use due to a benthic impairment at freshwater probabilistic monitoring station 5ARYR001.23.

Additional monitoring occurred during the 2014 cycle, both at station 5ARYR001.23 and at station 5ARYR000.62, which is located at Rt. 642. There is severe impairment at both stations.

Rocky Run

Aquatic Life

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Reservoir (Sq. Miles)

River (Miles)

21.27

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08L-01-HG Emporia Lake (Meherrin Reservoir)

Location: Emporia Lake

City / County: Greensville Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

In 2007 the lake had fish tissue monitoring with Mercury in 3 species (Chain Pickerel, Largemouth Bass and Redear Sunfish.

Emporia Lake (Meherrin Reservoir)

**Fish Consumption** 

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

263.45

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08L-02-DO Brunswick Lake

Location: Brunswick Lake
City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

In 2006 Brunswick Lake was assessed as not supporting the Aquatic Life Use due to low dissolved oxygen in bottom waters. The low DO only occurred during periods of stratification, however the TSIs for the lake were above 60:

TSI(TP) = 64 TSI(CA) = 69TSI(SD) = 66

Therefore the low dissolved oxygen was considered to be exacerbated by excessive nutrients and a TMDL was required. In addition, both total phosphorus and chlorophyll a were considered observed effects b/c of screening level exceedances. The lake should be reevaluated once nutrient criteria are established.

For the 2008 cycle nutrient criteria was developed for lakes and DO was no longer impaired. Only pH was impaired at 5ARDC007.30 with a violation rate of 5/36.

In the 2012 cycle the segment was listed as impaired for DO with a violation rate of 7/37.

During the 2014 cycle there was no new data so the impairments remain.

Brunswick Lake

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 160.33

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08L-02-PH Brunswick Lake

Location: Brunswick Lake
City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

In 2006 Brunswick Lake was assessed as not supporting the Aquatic Life Use due to low dissolved oxygen in bottom waters. The low DO only occurred during periods of stratification, however the TSIs for the lake were above 60:

TSI(TP) = 64 TSI(CA) = 69 TSI(SD) = 66

Therefore the low dissolved oxygen was considered to be exacerbated by excessive nutrients and a TMDL was required. In addition, both total phosphorus and chlorophyll a were considered observed effects b/c of screening level exceedances. The lake should be reevaluated once nutrient criteria are established.

For the 2008 cycle nutrient criteria was developed for lakes and DO was no longer impaired. Only pH was impaired at 5ARDC007.30 with a violation rate of 5/36.

In the 2010 cycle the segment was listed as impaired for DO with a violation rate of 12/70.

In the 2012 cycle the segment was listed as impaired for pH with a violation rate of 10/66.

During the 2014 cycle there was no new data so the impairments remain.

Brunswick Lake

Aquatic Life

PH - Total Impaired Size by Water Type:

Estuary (Sq. Miles)

Reservoir (Acres)

(Miles)

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08R-01-BAC Meherrin River

Location: Meherrin River from Reedy Creek to Douglas Run.

City / County: Brunswick Co. Greensville Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Meherrin River from Taylors Creek to Reedy Creek was originally considered fully supporting but threatened during the year 1998 cycle, but was downgraded during the 2002 cycle (K05R-02-BAC). During the 2006 cycle, the segment was assessed as not supporting of the Recreation Use support goal based on fecal coliform exceedances at 5AMHN068.30, 5AMHN073.98, and 5AMHN082.13 and E. coli exceedances at 5AMHN082.13.

During the 2010 cycle, the E. coli exceedance rate was 13/38 at 5AMHN082.13, 4/11 at 5AMHN075.24, 7/18 at 5AMHN073.98, and 4/18 at 5AMHN068.30. In addition, monitoring at 5AMHN060.95 indicated impairment (3/12 for E. coli), therefore the segment was extended downstream to Douglas Run. In the 2012 cycle, the exceedance rate was 18/41 at 5AMHN082.13; no additional monitoring was conducted at the other stations.

During the 2012 cycle, the Meherrin River and Tributaries bacterial TMDL was approved by the EPA on 4/12/2010 and by the SWCB on 9/30/2010. Although the upper portion was addressed in the TMDL, the expansion downstream to Douglas Run was not. The original portion of the Meherrin River is considered Category 4A. The extension will be split into a separate impairment which will be due in 2022.

Meherrin RiverEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

3.04

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08R-01-PH Meherrin River

Location: Meherrin River from Reedy Creek to Douglas Run.

City / County: Brunswick Co. Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The Meherrin River from Reedy Creek to Douglas Run was assessed as not supporting of the Aquatic Life Use due to a pH exceedance rate of 4/12 at 5AMHN060.95, which is located at the Virginia Beach pipeline crossing.

Meherrin River

Reservoir River

Aquatic Life

Reservoir (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 3.04

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08R-03-BAC Wilson Creek

Location: Wilson Creek from its beginning at the confluence of Dukes Branch and Huckleberry Branch to its mouth at Brunswick Lake.

City / County: Brunswick Co. Greensville Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2012 cycle, Wilson Creek was impaired of the Recreation Use due to an E. coli exceedance rate of 2/12 at

5AWIL002.42, which is located at the Route 712 bridge. The violation rate was 7/24 during the 2014 cycle.

Wilson Creek

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

2.74

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K08R-03-PH Wilson Creek

Location: Wilson Creek from its beginning at the confluence of Dukes Branch and Huckleberry Branch to its mouth at Brunswick Lake.

City / County: Brunswick Co. Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5A

During the 2010 cycle, Wilson Creek was assessed as not supporting of the Aquatic Life Use due to pH exceedances at

5AWIL002.42, which is located at Rt. 712. The violation rate was 4/35 during the 2014 cycle.

Wilson Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

2.74

Sources:

Industrial Point Source

Discharge

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K09R-01-DO Meherrin River

Location: The Meherrin River from the Emporia Reservoir Dam to the Route 730 bridge

City / County: Emporia City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

The Meherrin River was initially listed during the 1998 cycle as fully supporting but threatened of the Aquatic Life Use support goal and was downgraded to impaired during the 2004 cycle due to a dissolved oxygen exceedances at the Route 301 bridge (5AMHN052.34). During the 2006 cycle, the violation rate was acceptable, therefore the segment was delisted.

However, during the 2008 cycle, the violation rate was 5/38, therefore the segment was relisted. The TMDL is due in 2020. The violation rate was 6/36 during the 2014 cycle.

Meherrin River

Aquatic Life

Oxygen, Dissolved - Total Impaired Size by Water Type:

Estuary (Sq. Miles) Reservoir (Miles)

(Acres) River (Miles)

26.75

Sources:

Dam or Impoundment Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K09R-01-HG Meherrin River, Fontaine Creek, Mill Swamp

Location: Meherrin River below Emporia Reservoir Dam to the state line, including its tributaries Fontaine Creek up to I-95 bridge

crossing and Mill Creek up to I-95 bridge crossing

City / County: Emporia City Greensville Co. Southampton Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

On 12/13/2004, the Virginia Department of Health issued a fish consumption advisory due to mercury in gizzard shad. The advisory includes the Meherrin River from below the Emporia dam downstream ~28 miles to the Route 730 bridge. In addition, on 9/16/2008, they issued an advisory for bowfin and largemouth bass from Emporia Reservoir dam to the state line, including the tributaries Fontaine Creek and Mill Swamp up to the I-95 bridge crossings.

The segments will be considered impaired of the Fish Consumption Use. The advisory was based on mercury exceedances at DEQ monitoring stations 5AMHN026.54, 5AMHN051.43, 5AFON006.07, and 5AMLS001.42.

Meherrin River, Fontaine Creek, Mill Swamp

Fish Consumption

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

67.74

#### Sources:

Atmospheric Deposition -

Source Unknown

Toxics



### Chowan River and Dismal Swamp Basins

Cause Group Code: K09R-01-PCB Meherrin River

Location: The Meherrin River from the Emporia Reservoir Dam to the Route 730 bridge

City / County: Emporia City
Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

During the 2004 cycle, the Meherrin River from the Emporia Reservoir dam downstream approximately 5 miles was assessed as not supporting the Fish Consumption Use due to PCBs in fish tissue in two samples at station 5AMHN051.43. During the 2006 cycle, VDH issued a fish consumption advisory for PCBs from the Emporia dam to the Route 730 bridge (12/13/2004). The segment was extended to match the advisory. The TMDL due date for PCBs is 2016.

Meherrin River

Fish Consumption

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type:

26.75

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-01-DO Rattlesnake Creek

Location: Rattlesnake Creek mainstem from headwaters to its mouth at Fontaine Creek

City / County: Brunswick Co. Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Rattlesnake Creek from Edwards Creek to its mouth was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen exceedances at several stations in the segment. The impairment was extended upstream in the 2012 cycle. During the 2014 cycle, the exceedance rates were as follows:

1/10 at 5ARSK000.23 4/24 at 5ARSK003.08 6/12 at 5ARSK006.97 4/12 at 5ARSK009.28 2/10 at 5ARSK011.59

Rattlesnake Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

17.18

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-02-DO Fontaine Creek (Fountains Creek)

Location: Fontaine Creek mainstem from Rattlesnake Creek to the confluence with tributary XGV

City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Fontaine Creek from Rattlesnake to the confluence with tributary XGV was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen exceedances throughout the segment.

3/9 at 5AFON039.47 3/25 at 5AFON037.89 5/12 at 5AFON033.05 3/12 at 5AFON027.33

Fontaine Creek (Fountains Creek)

**Aquatic Life** 

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

17.20

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-03-DO **Quarrel Creek** 

Location: Quarrel Creek mainstem from White Oak Creek to its mouth.

City / County: Brunswick Co. Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Quarrel Creek was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen violations at 5AQRL000.54, which is located at Rt. 602. The violation rate was 5/12 during the 2012 cycle. No additional data has been collected.

**Quarrel Creek** Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 3.34

Oxygen, Dissolved - Total Impaired Size by Water Type:

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#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-04-DO Beddingfield Creek

Location: Beddingfield Creek from Mason Branch to its mouth at Fontaine Creek.

City / County: Brunswick Co. Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Beddingfield Creek was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen violations at 5ABDD000.69, which is located at Rt. 600. The violation rate was 5/11 during the 2012 cycle.

Beddingfield Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

4.18

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-05-PH Long Branch

Location: Long Branch from its headwaters to its mouth at Rattlesnake Creek

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2010 cycle, Long Branch was assessed as not supporting of the Aquatic Life Use due to a pH exceedance rate of 2/12 at 5ALNG000.77, which is located at Rt. 690.

Long Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

2.67

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-06-DO Rocky Run

Location: Rocky Run from the Doyle Lake dam to its mouth at Fontaine Creek.

City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Rocky Run was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to dissolved oxygen exceedances at 5ARCY000.90, which is located at Route 604. The violation rate was 4/12 during the 2012 cycle.

Rocky Run

Aquatic Life

Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

0.86

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K10R-06-PH Rocky Run

Location: Rocky Run from the Doyle Lake dam to its mouth at Fontaine Creek.

City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

Rocky Run was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a pH exceedance rate of 2/12 at 5ARCY000.90, which is located at Route 604.

Rocky Run Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

0.86

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-04-DO **Fontaine Creek** 

Location: Fontaine Creek from the I-95 bridge to the Route 301 bridge.

City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2012 cycle, Fontaine Creek from I-95 to Route 301 was assessed as impaired of the Aquatic Life Use due to a dissolved oxygen violation rate of 3/22 at 5AFON014.38. Continued monitoring was recommended due to the low violation rate and an acceptable violation rate at 5AFON016.90 (0/2.) The exceedance rate increased to 4/24 during the 2014 cycle.

Fontaine Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 7.30

Oxygen, Dissolved - Total Impaired Size by Water Type:

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-05-DO Beaverpond Creek

Location: The mainstem of Beaverpond Creek within Virginia.

City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2010 cycle, Beaverpond Creek was assessed as not supporting of the Aquatic Life Use due to dissolved oxygen exceedances. The violation rates during the 2012 cycle were as follows:

3/12 at 5ABVC000.48 2/12 at 5ABVC002.31

Beaverpond Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

3.35

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-06-PH XGV - Fontaine Creek, UT

Location: Headwaters to mouth City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

XGV was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a pH exceedance rate of 3/7 at

5AXGV000.92.

XGV - Fontaine Creek, UT

Estuary (Sq. Miles) Reservoir (Acres)

River (Miles)

pH - Total Impaired Size by Water Type:

1.95

#### Sources:

**Aquatic Life** 

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-07-DO XGW - Fontaine Creek, UT

Location: Headwaters to mouth City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

XGW was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a dissolved oxygen exceedance rate of 2/9 at 5AXGW001.19, which is located at Rt. 650.

XGW - Fontaine Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 4.46

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-07-PH XGW - Fontaine Creek, UT

Location: Headwaters to mouth City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

XGW was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a pH exceedance rate of 2/9 at 5AXGW001.19, which is located at Rt. 650.

XGW - Fontaine Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 4.46

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-08-DO XGU - Fontaine Creek, UT

Location: Headwaters to mouth City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

XGU was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a dissolved oxygen exceedance rate of 9/12 at 5AXGU000.35, which is located at frontage road F-128.

XGU - Fontaine Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 1.82

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K11R-08-PH XGU - Fontaine Creek, UT

Location: Headwaters to mouth City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

XGU was assessed as not supporting of the Aquatic Life Use in the 2010 cycle due to a pH exceedance rate of 6/12 at 5AXGU000.35, which is located at frontage road F-128.

XGU - Fontaine Creek, UT

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 1.82

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K13R-02-DO Flat Swamp

Location: This cause encompasses the are downstream of the confluence of Bellyache Swamp and Frank's Branch extending

downstream to its confluence with Tarrara Creek.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on DO data from 2004 that exceed the criteria for this parameter. However this water is Class VII and there is not an established criteria for DO for 2014 Assessment. We are not able to determine use support for this cycle.

Flat Swamp
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

8.48

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K14L-02-BAC Nottoway Falls Lake

Location: Nottoway Falls Lake

City / County: Lunenberg Co. Nottoway Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Station ID:

5ANTW143.06 (2007/2011-2012 Nottoway Falls Lake)

E. coli - 2/14 Violation Rate

Nottoway Falls Lake

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 32.26

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K14L-02-DO Nottoway Falls Lake

Location: Nottoway Falls Lake

City / County: Lunenberg Co. Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Station ID:

5ANTW143.06 (2007/2011-2012 Nottoway Falls Lake)

DO - 7/39 Violation Rate

Nottoway Falls Lake

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 32.26

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K14L-02-HG Nottoway Falls Lake

Location: Nottoway Falls Lake

City / County: Lunenberg Co. Nottoway Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

Station ID:

5ANTW143.06 (2007 FT Sampling)

Hg 2 Species

Nottoway Falls Lake
Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 32.26

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K14R-01-BEN Nottoway River

Location: Nottoway River from its confluence with Big Hounds Creek to its confluence with Little Nottoway River.

City / County: Lunenberg Co. Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5ANTW134.52 (2007 Probmon)

IM - This section of the Nottoway River had very slow-moving water and limited habitat availability, mostly in the form of large woody debris. Sediment deposition in the river was relatively high and banks were marginally stable. The flow was low in the fall due to the drought.

Nottoway River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 7.26

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K15L-01-HG Nottoway Pond

Location: Nottoway Pond
City / County: Nottoway Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

Station ID:

5ALZT000.12 (2007 FT Sampling)

Hg 2 Species

Nottoway Pond Estuary Reservoir River Fish Consumption (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 50.70

Sources:

Source Unknown



4.97

### Chowan River and Dismal Swamp Basins

Cause Group Code: K15R-03-DO Lazaretto Creek

Location: Lazaretto Creek from the headwaters of Crystal Lake to its headwaters.

City / County: Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Station ID:

5ALZT001.39 (Ambient)

Dissolved Oxygen - 2/12 Violation Rate

Lazaretto Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K15R-04-BEN Mallorys Creek

Location: Mallorys Creek from its headwaters to the mouth

City / County: Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5AMLL000,03 (2012 Probmon)

IM - Sediment metrics scored moderate to low with the presence of beaver activity and filamentous algae.

Mallorys Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

7.11

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K16L-01-TP Fort Pickett Reservoir

Location: Fort Pickett Reservoir

City / County: Brunswick Co. Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Phosphorus (Total) / 5A

Station IDs:

5ANTW127.14 (Lake Station) Lake treated with algaecides

Total Phosphorus - 2/3 Violation Rate (Median calculated from 3 sample years)

Fort Pickett Reservoir Estuary Reservoir River (Miles)

(Sq. Miles) (Acres) **Aquatic Life** 

Phosphorus (Total) - Total Impaired Size by Water Type: 318.95

Sources:

Source Unknown



2.00

### Chowan River and Dismal Swamp Basins

Cause Group Code: K16R-03-DO Hurricane Branch

Location: Hurricane Branch from Gettysburg Road crossing to its confluence with Nottoway River

City / County: Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Station ID:

5AHUR001.91 (Ambient)

Dissolved Oxygen - 2/6 Violation Rate

Hurricane Branch

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K16R-04-BAC Nottoway River

Location: Nottoway River from Fort Pickett raw water intake to its confluence with Hurricane Branch.

City / County: Brunswick Co. Nottoway Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Station ID:

5ANTW126.94 (Ambient) E. coli - 2/12 Violation Rate

Nottoway River

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 3.39

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K16R-06-DO Tommeheton Creek

Location: Tommeheton Creek from its headwaters to the backwaters of Tommeheton Lake.

City / County: Brunswick Co. Dinwiddie Co. Lunenberg Co. Nottoway Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Station ID:

5ATMT006.63 (Ambient)

Dissolved Oxygen - 4/12 Violation Rate

Tommeheton Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 7.84

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K16R-07-BEN Seay Creek

Location: Seay Creek from its headwaters to it mouth on Crooked Creek.

City / County: Lunenberg Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Station ID:

5ASYC003.90 (2012 Bio)

IM - Seay Creek and its benthic community is limited by available habitat. Hardpan clay is dominant and banks show signs of frequent scouring events. Algae and brown floc observed in slower reached of the stream, indicating a potential for nutrient

Seay Creek
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

7.48

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K17R-01-BAC Nottoway River

Location: The Nottoway River from Turkey Egg Creek to Sturgeon Creek.

City / County: Brunswick Co. Dinwiddie Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, the Nottoway River from Turkey Egg Creek to Sturgeon Creek was assessed as not supporting of the Recreation Use due to E. coli exceedances at the Route 1 bridge (5ANTW109.02). The violation rate was 7/36 during the 2014

cycle.

Nottoway River

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

9.99

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K17R-02-BAC Waqua Creek

Location: Wagua Creek upstream of the Route 46 bridge

City / County: Brunswick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Waqua Creek was initially assessed as not supporting of the Recreation Use goal during the 2002 cycle. In 2004, the impairment was based on fecal coliform exceedances at 5AWAQ020.52 (Route 617) and at 5AWAQ022.17 (private road). These stations were confined animal feeding operation (CAFO) special study stations.

There had been no additional monitoring since 2002, so the 2004 assessment was carried over. However, additional monitoring was conducted during the 2012 cycle. The impairment was confirmed due to an E. coli violation rate of 3/12 at 5AWAQ020.52 and the impairment was converted to E. coli.

Waqua Creek **Estuary** Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli - Total Impaired Size by Water Type:

Appendix 5 - 846

3.57

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K18R-01-DO Sturgeon Creek

Location: The mainstem of Sturgeon Creek from its headwaters downstream to the confluence with Lloyds Run.

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The dissolved oxygen violation rate at station 5ASTG013.22, which is located at the Route 1 bridge, was 2/12 during the 2014 cycle. Therefore, the segment is considered impaired of the Aquatic Life Use.

Sturgeon Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Appendix 5 - 847

12.96

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-01-BAC Masons Branch

Location: Masons Branch from its headwaters to its mouth at Indian Creek.

City / County: Brunswick Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2012 cycle, Masons Branch was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 2/17 at 5AMSN001.62, which is located at the Route 633 bridge.

Masons Branch

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

4.89

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-01-DO Masons Branch

Location: Masons Branch from its headwaters to its mouth at Indian Creek.

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The dissolved oxygen violation rate at 5AMSN001.62 (Route 633 bridge) was 2/17 during the 2014 cycle; therefore, the segment is considered impaired of the Aquatic Life Use.

Masons Branch

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

4.89

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-01-PH Masons Branch

Location: Masons Branch from its headwaters to its mouth at Indian Creek.

City / County: Brunswick Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2010 cycle, Masons Branch was assessed as not supporting of the Aquatic Life Use due to pH violations at 5AMSN001.62, which is located at the Route 633 bridge. The violation rate was 3/17 during the 2012 cycle.

Masons Branch

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 4.89

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-03-BAC Buckskin Creek

Location: Buckskin Creek from its headwaters to its mouth at the Nottoway River.

City / County: Dinwiddie Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Buckskin Creek was previously assessed as not supporting the Recreation Use goal based on a fecal coliform violations at the Route 609 bridge (5ABSK004.32).

Additional monitoring was conducted during the 2010 cycle. The impairment was confirmed and converted to E. coli due to a violation rate of 2/10. During the 2012 cycle, the violation rates were as follows:

2/12 at 5ABSK000.60 5/22 at 5ABSK004.32 3/12 at 5ABSK006.52 4/12 at 5ABSK007.40

2/12 at 5ABSK008.75 4/11 at 5ABSK011.17

Buckskin Creek
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

11.90

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-03-DO Buckskin Creek

Location: Buckskin Creek from the confluence with XHW to the next downstream tributary.

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

During the 2012 cycle, the portion of Buckskin Creek downstream of tributary XHW was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 6/12 at 5ABSK008.75, which is located at Rt. 692.

Buckskin Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

1.01

Sources:

Dam or Impoundment Natural

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-04-HG Nottoway River and Tributaries

Location: The Nottoway River from the confluence with the Blackwater River at the Virginia-North Carolina state line upstream to

State Route 619 near Purdy, including its tributaries Assamoosick Swamp, Three Creek up to I-95, Rowanty Creek and

tributaries, Hatcher Run to I-85, and Arthur Swamp to I-85.

City / County: Dinwiddie Co. Emporia City Greensville Co. Prince George Co. Southampton Co.

Sussex Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

During the 2008 cycle, the Nottoway River from the confluence with the Blackwater River at the Virginia-North Carolina state line upstream to State Route 619 near Purdy, including its tributary Assamoosick Swamp, was considered impaired of the Fish Consumption Use due to a VDH fish consumption advisory for mercury. Three Creek up to I-95, Rowanty Creek and its tributaries, Hatcher Run up to I-85, and Arthur Swamp up to I-85 were added to the advisory during the 2010 cycle. No more than two meals/mouth of largemouth bass, smallmouth bass, bowfin, redhorse sucker species, longnose gar, channel catfish, chain pickerel, or sunfish species are recommended.

The advisory was based on exceedances of TSVs and TVs at several DEQ fish tissue monitoring stations, including 5ANTW091.70, 5ANTW075.48, 5ANTW077.95, 5ANTW045.45, 5AASM013.36, 5AROW002.41, 5AATH006.56, and 5AHRA004.16.

Nottoway River and Tributaries

Estuary Reservoir

**Fish Consumption** 

(Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

186.49

River

#### Sources:

Atmospheric Deposition -

Source Unknown

Toxics



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-05-BEN XEJ - Nottoway River, UT

Location: An unnamed tributary (XEJ) of the Nottoway River in its entirety.

City / County: Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

During the 2008 cycle, the segment was assessed as impaired of the Aquatic Life Use due to an impaired benthic community at station 5AXEJ001.73 in 2001.

XEJ - Nottoway River, UT

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.88

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-06-BEN Nottoway River

Location: The Nottoway River from Buckskin Creek downstream to the confluence with an unnamed tributary located near the

Dinwiddie/Sussex Co. line

City / County: Brunswick Co. Dinwiddie Co. Greensville Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

This segment of the Nottoway River was assessed as impaired of the Aquatic Life Use during the 2008 cycle due to benthic monitoring in Fall 2003 at freshwater probabilistic station 5ANTW097.27.

Nottoway River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

1.04

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-07-DO XAD - Buckskin Creek, UT

Location: Tributary XAD from its headwaters to its mouth at Buckskin Creek.

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2012 cycle, the tributary XAD was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 4/12 at 5AXAD001.59, which is located at the Rt. 1 bridge.

XAD - Buckskin Creek, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 2.90

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-08-DO XHW - Buckskin Creek, UT

Location: Tributary XHW from its headwaters to its mouth at Buckskin Creek.

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

During the 2012 cycle, the tributary XHW was impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 5/11 at 5AXHW000.38, which is located at the Rt. 692 bridge.

XHW - Buckskin Creek, UT Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 

Oxygen, Dissolved - Total Impaired Size by Water Type:

1.63

Sources:

Dam or Impoundment Natural Conditions - Water Source Unknown Quality Standards Use

Attainability Analyses

Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-09-BAC XHX - Buckskin Creek, UT

Location: Tributary XHX from its headwaters to its mouth at Buckskin Creek.

City / County: Dinwiddie Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2012 cycle, the tributary XHX was impaired of the Recreation Use due to an E. coli exceedance rate of 2/9 at 5AXHX001.19, which is located at the Rt. 709 bridge.

XHX - Buckskin Creek, UT

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

2.66

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K19R-10-BAC XHY - Buckskin Creek, UT

Location: Tributary XHY from its headwaters to its mouth at Buckskin Creek.

City / County: Dinwiddie Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2012 cycle, the tributary XHY was impaired of the Recreation Use due to an E. coli exceedance rate of 3/11 at 5AXHY001.08, which is located south of Route 40.

XHY - Buckskin Creek, UT

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.61

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K20R-02-DO White Oak Swamp

Location: The lower portion of White Oak Swamp

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The mainstems of White Oak Swamp and Butterwood Swamp were initially listed as fully supporting but threatened for dissolved oxygen in the 1998 cycle (VAP-K20R-01). Station 5ABTR002.80 (Route 646 bridge) was identified to Virginia for listing consideration because of dissolved oxygen.

During the year 2002 cycle, the segment was assessed partially supporting of the Aquatic Life Use because of pH exceedances (5ABTR002.80). The DO violation rate at this station was acceptable (3/38), but due to DO exceedances throughout the watershed, the segment was extended to include Reedy Creek and Rocky Run Creek. The entire segment was listed for both pH and dissolved oxygen.

During the 2006 cycle, two Natural Conditions Assessment studies were performed. The results of the monitoring and study indicated that all creeks should be delisted except for:

Butterwood Creek (DO) from rm 14.59 to 4.65; recommended for Class VII Cooks Branch (pH) from rm 1.08 to 0.00; recommended for Class VII White Oak Swamp (DO/pH) at the headwaters; recommended for cat 4C

This lower portion of White Oak Creek was delisted.

During the 2012 cycle, White Oak Creek was assessed as fully supporting the Aquatic Life Use. No additional data was collected during the 2014 cycle; however, more data that was collected within the 2012 window was made available. That data indicated that the segment is impaired for dissolved oxygen due to exceedances at 5AWOK000.54 (Route 624 bridge): 2/11 in the 2014 cycle.

White Oak Swamp

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

14.83

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



8.35

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K21R-03-HG Stony Creek

Location: Stony Creek from Mortar Branch downstream to its mouth.

City / County: Dinwiddie Co. Sussex Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

During the 2010 cycle, Stony Creek from Mortar Branch to its mouth was assessed as not supporting of the Fish Consumption Use due to mercury exceedances in flier sunfish and spotted bass during DEQ's 2007 fish tissue sampling.

Stony Creek Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

Sources:

Atmospheric Deposition -

**Toxics** 

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K21R-04-DO XID - Chamberlains Bed, UT

Location: Headwaters to mouth at Chamberlains Bed

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2012 cycle, the tributary was assessed as not supporting of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 3/3 at National Park Service station 5AXID-PETE-10-NPS, which is located at the intersection of Gravelly Brook and Gravelly Run.

The exceedance rate increased to 11/16 during the 2014 cycle.

XID - Chamberlains Bed, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

2.95

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K21R-04-PH XID - Chamberlains Bed, UT

Location: Headwaters to mouth at Chamberlains Bed

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2012 cycle, the tributary was assessed as not supporting of the Aquatic Life Use due to a pH exceedance rate of 3/3 at National Park Service station 5AXID-PETE-10-NPS, which is located at the intersection of Gravelly Brook and Gravelly Run.

The exceedance rate increased to 16/16 during the 2014 cycle.

XID - Chamberlains Bed, UT Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 

pH - Total Impaired Size by Water Type:

2.95

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K21R-05-BAC Mortar Branch

Location: Headwaters to mouth at Stony Creek

City / County: Dinwiddie Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2014 cycle, Mortar Branch was assessed as impaired of the Aquatic Life Use due to an E. coli exceedance rate of 4/11 at station 5AMTR001.65, which is located at the Route 626 bridge.

Mortar Branch

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

6.12

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K21R-05-DO **Mortar Branch** 

Location: Headwaters to mouth at Stony Creek

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

During the 2014 cycle, Mortar Branch was assessed as impaired of the Aquatic Life Use due to a dissolved oxygen exceedance rate of 3/11 at station 5AMTR001.65, which is located at the Route 626 bridge.

Mortar Branch Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 

Oxygen, Dissolved - Total Impaired Size by Water Type:

6.12

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K21R-05-PH Mortar Branch

Location: Headwaters to mouth at Stony Creek

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

During the 2014 cycle, Mortar Branch was assessed as impaired of the Aquatic Life Use due to a pH exceedance rate of 5/11 at station 5AMTR001.65, which is located at the Route 626 bridge.

Mortar Branch
Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

6.12

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



3.96

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K22R-02-DO Horsepen Branch

Location: Horsepen Branch from its headwaters downstream to its mouth at Mill Run Branch

City / County: Dinwiddie Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Horsepen Branch was assessed as not supporting the Aquatic Life Use during the 2006 cycle due to dissolved oxygen exceedances at the Route 619 bridge (5AHSP000.38). During the 2008 cycle, the exceedance rate was 4/22. No additional data has been collected.

Horsepen Branch

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K22R-03-BAC Sappony Creek

Location: Sappony Creek from its headwaters downstream to Spiers Pond.

City / County: Dinwiddie Co. Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Sappony Creek from the headwaters to Spiers Pond was assessed as impaired of the Recreation Use during the 2006 due to an E. coli violation rate of 3/12 at 5ASAP005.54. In the 2010 cycle, the impairment was shortened to begin at Mill Run Branch because the E. coli rate at 5ASAP013.69 was acceptable (1/20). The violation rate was 3/13 during the 2012 cycle, therefore the segment was returned to its original length.

No additional data was collected in the 2014 cycle.

Sappony Creek
Recreation

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

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Escherichia coli - Total Impaired Size by Water Type:

21.04

#### Sources:



11.22

### Chowan River and Dismal Swamp Basins

Cause Group Code: K23R-02-BAC Joseph Swamp

Location: The mainstem of Joseph Swamp.

City / County: Prince George Co. Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, Joseph Swamp was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 2/9 at 5AJOE003.92, which is located at Rt. 602.

Joseph Swamp

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

Sources:



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K23R-04-BAC Jones Hole Swamp/Moores Swamp and all tributaries

Location: Jones Hole Swamp/Moores Swamp and tributaries from the mouth at the Nottoway River to their headwaters.

City / County: Dinwiddie Co. Prince George Co. Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, the Jones Hole Swamp watershed was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 5/22 at 5AJNH001.73, which is located at the Route 637 bridge.

The violation rate was 6/24 during the 2014 cycle.

Jones Hole Swamp/Moores Swamp and all tributaries

Recreation

Estuary Reservoir (Sq. Miles) (Acres)

River (Miles)

Escherichia coli - Total Impaired Size by Water Type:

84.06

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K23R-05-BAC Gosee Swamp and Tributaries

Location: Gosee Swamp/Indian Creek and all of its tributaries below rivermile 6.88

City / County: Prince George Co. Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2014 cycle, lower Gosee Swamp was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 2/12 at 5AGSE001.35, which is located at the Rt. 602 bridge.

Gosee Swamp and Tributaries

Recreation

Estuary (Sq. Miles) Reservoir (Acres)

River (Miles)

Escherichia coli - Total Impaired Size by Water Type:

28.02

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K23R-10-BAC Rowanty Creek

Location: Rowanty Creek mainstem downstream of Gravelly Run.

City / County: Dinwiddie Co. Prince George Co. Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2012 cycle, Rowanty Creek from Little Cattail Creek to the mouth was assessed as impaired of the Recreation Use due to an E. coli exceedance rate of 2/12 at 5AROW004.72, which is located at the Route 618 bridge. Continued monitoring was recommended to confirm the impairment because all other stations in the segment were acceptable.

Additional monitoring was conducted in the 2014 cycle at station 5AROW013.14, which is located at the Route 605 bridge. The exceedance rate was unacceptable (3/24), therefore the segment was extended upstream to Gravelly Run.

Rowanty Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

14.07

Sources:



### Chowan River and Dismal Swamp Basins

Cause Group Code: K27R-03-BEN Applewhite Swamp

Location: This cause encompasses the area from the start of swamp (near Harrells Mill) downstream to confluence with Three Creek.

Located south of Mason & northeast of Arringdale.

City / County: Southampton Co. Sussex Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use impairment is retained based on the Benthic population rating from the Benthic ProbMon-Benthic IM [MI:S&F-'01, S&F-'02]. No data within Assessment window. Impairment retained until new data collected.

Applewhite Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

8.17

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K27R-05-BEN Three Creek - Upper

Location: This cause encompasses the area from the confluence of Chatman Branch (RM 19.26) downstream to above Southampton

Correctional Farm at Rt 308 crossing (RM 10.4).

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use impairment is retained from the 2004 Assessment based on benthic monitoring assessment which indicates impairment (MI in Fall-'04] based on data at DEQ (AQM & Bio) station @ 5ATRE016.02.

Three Creek - Upper Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

9.16

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-01-DO Mill Swamp

Location: This cause encompasses the Main stem of Mill Swamp only, from headwaters downstream to the confluence with the

Nottoway River. Tributary to Nottoway R, downstream of PWS. W of Delaware.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on the dissolved oxygen exceedances at Station 5AMSP000.16 (3 violates/ 12 obs.).

Mill Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

10.49

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-01-PH Mill Swamp

Location: This cause encompasses the Main stem of Mill Swamp only, from headwaters downstream to the confluence with the

Nottoway River. Tributary to Nottoway R, downstream of PWS. W of Delaware.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The Aquatic Life Use is impaired based on the pH exceedances at Station 5AMSP000.16 (2 violates/ 12 obs.). Data collected from 2009 and 2010.

Mill Swamp

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Miles)

River (Sq. Miles)

PH - Total Impaired Size by Water Type:

10.49

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-02-BEN Buckhorn Swamp

Location: This cause encompasses the segment of Buckhorn Swamp that is near Pope Count, segment is located between State

Hwy 652 and US Hwy 58. Segment ends below State Hwy 657.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on the Benthic population rating from the Benthic ProbMon-sample events [MI:F-'06, VI:S-'06] at Station 5ABKH005.16.

Buckhorn Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

5.68

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-04-BEN Unnamed Tributary to Mill Swamp

Location: This cause encompasses the tributary running S / SE from Mill Swamp. To the east of Darden Pond and crosses RT 749

perpendicular.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Benthic data is impaired at station 5AXEC000.76 (X-Trib to Mill Swamp). Spring Score 2012 = 17.1, Fall Score 2012 = 37.5. This was a 2012 probabilistic monitoring site. This stream has very steep banks but is very shallow with loosely packed sediment and little habitat available for benthic organisms to colonize. Assessed with VCPMI score.

Unnamed Tributary to Mill Swamp

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

1.85

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-05-BAC Buckhorn Swamp

Location: This cause encompasses the segment of Buckhorn Swamp near Pope that crosses over Route 652.

City / County: Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E. coli data collected at Station 5BKH003.89 with 2 viol / 12 obs.

Buckhorn Swamp

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

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4.62

#### Sources:



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-05-DO Buckhorn Swamp

Location: This cause encompasses the segment of Buckhorn Swamp near Pope that crosses over Route 652.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Aquatic Life Use is impaired based on DO at Station 5BKH003.89 with 4 viol / 12 obs. The DO impairment is thought to be from natural conditions. There is currently no natural conditions report.

Buckhorn Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

4.62

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-06-DO Nottoway Swamp

Location: This cause encompasses the segment of Nottoway Swamp near Route 611.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Aquatic Life Use is impaired based on DO and pH exceedances at Station 5ANT002.96. DO - 5 viol / 11 obs and pH 8 viol / 11

obs.

Nottoway Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

8.11

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K28R-06-PH Nottoway Swamp

Location: This cause encompasses the segment of Nottoway Swamp near Route 611.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

Aquatic Life Use is impaired based on DO and pH exceedances at Station 5ANT002.96. DO - 5 viol / 11 obs and pH 8 viol / 11

obs.

Nottoway Swamp

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

8.11

#### Sources:



### Chowan River and Dismal Swamp Basins

Cause Group Code: K29R-02-BAC Assamoosick Swamp

Location: Assamoosick Swamp from rivermile 2.5 near Mill Run downstream to its mouth

City / County: Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, Assamoosick Swamp from rivermile 2.5 near Mill Run downstream to its mouth was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 2/11 at 5AASM000.89, which is located at the Route 647

bridae.

Assamoosick Swamp

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

2.46

#### Sources:

Source Unknown

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K29R-03-BAC XGT - Assamoosick Swamp, UT

Location: The UT XGT from its headwaters to its mouth at Assamoosick Swamp.

City / County: Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

During the 2010 cycle, the segment was assessed as not supporting of the Recreation Use due to an E. coli exceedance rate of 2/6 at 5AXGT000.50, which is located at the Route 607 bridge.

XGT - Assamoosick Swamp, UT

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.93

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K30R-01-DO Darden Mill Run

Location: This cause encompasses the area from headwaters near Newsoms downstream to Windbourne Millpond, near VA/NC state

line.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Aquatic Life Use is impaired due to depressed DO & pH concentrations below the criteria minimum. Impairment is suspected due to natural swamp conditions present in these waters, low flow and high organic content. Below criteria minimum =  $4.0 \, \text{mg/l}$ . DO =  $18 \, \text{viol} / 33 \, \text{obs}$  and pH  $25 \, \text{viol} / 33 \, \text{obs}$ .

Darden Mill Run

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

10.74

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K30R-01-PH Darden Mill Run

Location: This cause encompasses the area from headwaters near Newsoms downstream to Windbourne Millpond, near VA/NC state

line.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

Aquatic Life Use is impaired due to depressed DO & pH concentrations below the criteria minimum. Impairment is suspected due to natural swamp conditions present in these waters, low flow and high organic content. Below criteria minimum =  $4.0 \, \text{mg/l}$ . DO =  $18 \, \text{viol} / 33 \, \text{obs}$  and pH  $25 \, \text{viol} / 33 \, \text{obs}$ .

Darden Mill Run

Estuary Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

10.74

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



4.54

### Chowan River and Dismal Swamp Basins

Cause Group Code: K30R-02-DO Nottoway River - Lower

Location: This cause encompasses the lower portion of the Nottoway River in watershed K30. Segment starts below Mill Creek near

Point Beach to VA/NC state line.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

The Aquatic Life Use is impaired based on DO data at Station 5ANTW003.30 (4 violations / 36 observations).

Nottoway River - Lower Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K32R-01-BEN Blackwater River - Lower

Location: This cause encompasses the lower portion of Blackwater River in K32. Starts at the confluence with Cypress Swamp

(upstream of Walls Bridge) downstream to above Rt 617 crossing @ Walls Bridge (RM 58.22).

City / County: Isle Of Wight Co. Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on benthic data collected at stations 5ABLW052.91 and 5ABLW055.26.

Blackwater River - Lower Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.32

Sources:



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K32R-13-HG **Blackwater River Basin** 

Location: Blackwater River and tributaries from its headwaters to the VA-State Line

City / County: Dinwiddie Co. Isle Of Wight Co. Petersburg City Prince George Co. South Boston City

> Southampton Co. Suffolk City Surry Co. Sussex Co.

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

During the 2006 cycle, the Blackwater River from Route 31 near Dendron downstream to the Virginia-North Carolina state line was assessed as impaired of the Fish Consumption Use due to a VDH fish consumption advisory for mercury.

During the 2008 cycle, the advisory was expanded on 8/31/2007 to include the Blackwater River to its headwaters, including all of its tributaries. The advisory currently recommends consuming no more than two meals/month of largemouth bass, sunfish species, bowfin, chain pickerel, white catfish, redhorse sucker and longnose gar.

The advisory is based on the results of DEQ's fish tissue monitoring program, which show mercury exceedances at multiple stations throughout the watershed, including 5ABKR003.68, 5ABKR002.33, 5AWKS013.53, 5ASEC005.39, 5ABLW074.66, 5ACPP004.04, 5ACPP007.86, 5AJCH000.73.

Blackwater River Basin Estuary Reservoir River

(Sq. Miles) (Acres) (Miles) **Fish Consumption** ######

Mercury in Fish Tissue - Total Impaired Size by Water Type:

Sources:

Atmospheric Deposition -Source Unknown

**Toxics** 



### Chowan River and Dismal Swamp Basins

Cause Group Code: K32R-18-BEN Blackwater River, UT

Location: Unnamed tributary XFM from its headwaters to its mouth at Blackwater River

City / County: Sussex Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

During the 2008 cycle, the tributary was assessed as not supporting the Aquatic Life Use due to impairment of the benthic community at station 5AXFM000.88, which is located at the Route 613 bridge.

Blackwater River, UT

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

3.13

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K33R-02-BAC Blackwater River - Upper

Location: This cause encompasses the upper portion of Blackwater R. in K33. Starts at the Rt 617 crossing (Walls Bridge, RM 58.22)

downstream to above Rt 460 crossing @ Zuni (RM 40.23).

City / County: Isle Of Wight Co. Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on the E.coli bacteria indicator at the upstream DEQ station @ 5ABLW053.54 (2

violations / 12 observations).

Blackwater River - Upper Estuary Reservoir River Recreation (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type: 20.24

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K33R-02-BEN Blackwater River - Upper

Location: This cause encompasses the upper portion of Blackwater R. in K33. Starts at the Rt 617 crossing (Walls Bridge, RM 58.22)

downstream to above Rt 460 crossing @ Zuni (RM 40.23).

City / County: Isle Of Wight Co. Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is not supporting based on benthic data from the 2008 Assessment for Station 5ABLW052.91 and 5ABLW055.26 within Upper Blackwater segment. No new benthic data within the assessment window.

Blackwater River - Upper Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 19.20

Sources:



9.34

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K33R-03-BEN Blackwater River - Lower

Location: This cause encompasses the Lower portion of Blackwater River within watershed, from Rt 460 bridge crossing, RM 40.22)

downstream to RM 39.34 [boundary of watershed 0.22 miles downstream of confluence with Antioch Swamp.

City / County: Isle Of Wight Co. South Boston City Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired due to the benthic assessment. Benthic impairment identified at DEQ (ProbMon) station 5ABLW038.69. Station 5ABLW038.69 Benthic IM [MI: S&F '05] and at Station 5ABMS000.80 Benthic IM [VI: S&F 10]. Revised benthic CGC since benthic impairment not continuous from upper and lower segments of the Blackwater.

Blackwater River - Lower Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

Sources:



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K34R-01-PH Mill Swamp

Location: This cause encompasses the area northwest of Raynor, upstream tributary to Rattlesnake Swamp. Segment begins at confluence of Moores Swamp with Mill Swamp (mile 16.78) downstream to confluence with Rattlesnake Swamp (mile 0.0).

City / County: Isle Of Wight Co. Surry Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The Aquatic Life Use is impairment is retained based on pH data outside the Class VII standard range 3.7 - 8.0 SU. For 2010, Station 5AMSW006.77 (0 violations / 12 observations) violations occur between 8.0 and 9.0 SU. CITMON station 617MIL (0 violations / 8 observations) for pH (Level II data). Data with impairments dropped off need new data to determine if still impaired.

Mill Swamp

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

8.44

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35L-01-DO Airfield Pond

Location: This cause encompasses all of Airfield Pond north of Lightwood Swamp; Off of State Route 628.

City / County: Sussex Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on DO data below the criteria. However Station 5ALTD005.10 is Class VII water and does not have criteria to assess DO. Therefore DO will remain impaired until standard is set.

Airfield Pond Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

120.07

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K35L-01-HG Airfield Pond

Location: This cause encompasses all of Airfield Pond north of Lightwood Swamp; Off of State Route 628.

City / County: Sussex Co.
Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

The Fish Consumption Use is impaired based on Fish Tissue data from 2006 at Station 5ALTD005.10. Fish Tissue data Impaired for Hg for fish species Brown Bullhead Catfish, Largemouth Bass, Chain Pickerel, Bowfin & Bluegill Sunfish. The VDH Fish Advisory is for all of Blackwater and its tributaries as stated on 10/29/03, modified 7/27/05 and again on 8/31/07.

Airfield Pond Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 120.07

#### Sources:



2.59

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-02-BAC Seacock Swamp - Lower

Location: This cause encompasses the Lower portion of Seacock Swamp South of Doles Crossroads, West of State Hwy 600.

City / County: Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Fecal Coliform / 5A

The Recreational Use is impaired at station 5ASK006.96 (7 violations / 30 observations) due to exceedance of E. coli bacteria standard. Also at station 5ASK003.84 there is Fecal Coliform exceedance of the swimming criteria indicator. New E. coli data has 1 violation with 1 observation. Additional bacteria data is required to remove the previous assessment of impaired.

Seacock Swamp - LowerEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Fecal Coliform - Total Impaired Size by Water Type:

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-02-BEN Seacock Swamp - Lower

Location: This cause encompasses the Lower portion of Seacock Swamp South of Doles Crossroads, West of State Hwy 600.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on Benthic population rating at Station 5ASCK003.84 Benthic IM [MI:S-'04].

Seacock Swamp - Lower Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.59

#### Sources:



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-03-BAC **UT Seacock Swamp** 

Location: This cause encompasses the UT to Seacock Swamp, from Headwaters to confluence with Seacock Swamp mainstem.

PRO CAFO special study.

City / County: Surry Co.

Use(s): Recreation

Cause(s) /

VA Category: Fecal Coliform / 5A

The Recreational Use is impaired based on data over 5 years old (2004 IR FC data 6 violations / 7 observations) at 5AXDY000.96. No E. coli data was collected for the 2014 Assessment however the impaired status was retained from Fecal Coliform data.

**UT Seacock Swamp** Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Recreation

Fecal Coliform - Total Impaired Size by Water Type:

0.68

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-03-DO **UT Seacock Swamp** 

Location: This cause encompasses the UT to Seacock Swamp, from Headwaters to confluence with Seacock Swamp mainstem.

PRO CAFO special study.

City / County: Surry Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on the depressed DO concentrations, impairment continued from 2004 IR. Class VII DO criteria is not defined for this Assessment. Impairment is suspected due to natural swamp conditions present in these waters, but confined animal operations are present in the watershed.

**UT Seacock Swamp** Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 

0.68

Oxygen, Dissolved - Total Impaired Size by Water Type:

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-04-BAC UT Airfield Pond - Lower

Location: This cause encompasses the Willis Branch to Airfield Pond, Segment starts near Rt 622 downstream to Airfield Pond. PRO

CAFO special study.

City / County: Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreational Use impairment is retained from 2006 based on E.coli exceedance of the swimming criteria indicator collected at Station 5AXDZ001.73 (2 violations / 2 observations). TMDL is 2016 since Fecal Coliform was cause for impairment

since listed in 2004.

UT Airfield Pond - Lower Estuary Reservoir River

Recreation (Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

0.71

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-04-DO **UT Airfield Pond - Lower** 

Location: This cause encompasses the Willis Branch to Airfield Pond, Segment starts near Rt 622 downstream to Airfield Pond. PRO

CAFO special study.

City / County: Sussex Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on depressed DO concentrations impairment continued from 2004 IR. Class VII DO criteria is not defined for this Assessment.

UT Airfield Pond - Lower Estuary Reservoir River (Sq. Miles) (Acres) (Miles) **Aquatic Life** 

0.71

Oxygen, Dissolved - Total Impaired Size by Water Type:

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Source Unknown

Final 2014



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-05-BAC **UT Airfield Pond - Upper** 

Location: This cause encompasses the UT (Willis Branch) to Airfield Pond from Headwaters to half-way between Rt 622 and Rt 729

(approx. RM 1.23) at confluence with UT. PRO CAFO special study.

City / County: Sussex Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use impairment is retained. Station 5AXDZ001.73 for E.coli (2 violations / 4 observations). Previous Fecal Coliform data impairment (TMDL ID: VAT-K41R-05) based on fecal coliform (13 violates / 16 observations). TMDL due date

retained as 2016.

UT Airfield Pond - Upper Estuary

Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli - Total Impaired Size by Water Type:

0.68

Sources:

Source Unknown **Animal Feeding Operations** 

(NPS)



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-05-DO UT Airfield Pond - Upper

Location: This cause encompasses the UT (Willis Branch) to Airfield Pond from Headwaters to half-way between Rt 622 and Rt 729

(approx. RM 1.23) at confluence with UT. PRO CAFO special study.

City / County: Sussex Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired due to depressed DO concentrations, impairment continued from 2004 IR (segment Class change from III to VII, can not delist previous impairments since current data (6 violations / 17 observations) does not meet previous criteria applicable at time of listing. Impairment is suspected due to natural swamp conditions present in these waters.

UT Airfield Pond - Upper Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Aquatic Life (Sq. Miles) (Acres) (Miles)

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Oxygen, Dissolved - Total Impaired Size by Water Type:

0.68

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-06-BAC Seacock Swamp - Upper

Location: This cause encompasses the upper Seacock Swamp, from Drumwright Pond downstream to confluence with unnamed tributary, approx. 0.1 mi downstream of Rt 628 crossing. Located west of Rt 460, south of Sussex - Southampton Co. line.

City / County: Southampton Co. Surry Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A Fecal Coliform / 5A

The Recreational Use is impaired based on Fecal Coliform data retained since no E.coli data collected. Station 5ASCK018.65 in 2006 (2 violations / 8 observations) for Fecal Coliform.

Seacock Swamp - Upper Recreation	Estuary Reservoir (Sq. Miles) (Acres)	River (Miles)
Escherichia coli - Total Impaired Size by Water Type:		2.50
Seacock Swamp - Upper	Estuary Reservoir	River
Recreation	(Sq. Miles) (Acres)	(Miles)
Fecal Coliform - 1	Total Impaired Size by Water Type:	0.84

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-07-DO Brantley Swamp - Lower

Location: This cause encompasses the area from confluence with Lightwood Swamp downstream to confluence with Seacock

Swamp. Located northeast of Pulleys Crossroads.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on depressed DO concentrations, impairment continued from 2004 IR. Class VII waters do not have DO criteria for 2012 Assessment.

Brantley Swamp - Lower Estuary Reservoir River
Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

3.65

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K35R-08-BEN Round Hill Swamp

Location: The cause encompasses the confluence of Seacock Swamp between State Route 614 and State Route 623.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on the benthic population rating from Benthic ProbMon-Benthic IM [MI:S-'05] at station 5ARHS000.39.

Round Hill Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

0.64

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-02-BAC **Blackwater River - Lower Middle** 

Location: This cause encompasses the lower Blackwater River from RM 13.76 (downstream of Franklin, confluence of UT, parallel to

Hayden High School) downstream west of Union Camp Holding Pond.

City / County: Isle Of Wight Co. Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E.coli data at DEQ (AQM) stations @ 5ABLW011.48 ( 2 violations / 18 observations), 5ABLW012.28 (7 violations / 35 observations), 5ABLW012.96 (3 violations / 18 observations), 5ABLW013.16 (10 violations /

35 observations).

Blackwater River - Lower Middle Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation

Escherichia coli - Total Impaired Size by Water Type:

2.85

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-02-BEN Black Creek

Location: This cause encompasses the Black Creek Located NW of Burdette. From Wades Pond downstream to mouth. Tributary to

Blackwater R. with confluence at RM 22.0.

City / County: Southampton Co.

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use impairment is retained based on the Benthic data collected at Station 5ABLC000.88 (Benthic ProbMon-Benthic IM [MI:F-'03, VI:S-'03]).

Black Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.95

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-03-BAC Black Creek - Upper

Location: This cause encompasses the upper Black Creek segment that Parallels with State Route 503. South East of Whitefields

Millpond and Johnson Millpond.

City / County: Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E. coli data exceedance of the swimming criteria indicator at Station 5ABLC006.97 (3 violations / 12 observations).

Black Creek - Upper
Recreation
Estuary (Sq. Miles)
Reservoir (Miles)
Escherichia coli - Total Impaired Size by Water Type:

1.25

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-04-BAC Cypress Swamp

Location: This cause encompasses Cypress Swamp from town of Sedley downstream to Route 611.

City / County: Isle Of Wight Co. Southampton Co. Suffolk City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired (2 violations / 11 observations) at Station 5ACYS001.92.

Cypress SwampEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type: 5.16

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-04-BEN Unsegmented Tributary to Blackwater

Location: This cause encompasses the Unsegmented River from Blackwater South of Franklin to North of State Hwy 58.

City / County: Southampton Co. Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on Benthic Impairments. The Benthic ProbMon is impaired [VI:S&F-'06, 07] AT DEQ (ProbMon) Station @ 5AXGI001.79.

Unsegmented Tributary to Blackwater

Aquatic Life

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

2.75

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-04-DO Cypress Swamp

Location: This cause encompasses Cypress Swamp from town of Sedley downstream to Route 611.

City / County: Isle Of Wight Co. Southampton Co. Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

The Aquatic Life Use is not supporting based on DO (6 violations / 11 observations).

Cypress Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 5.16

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-05-BAC Washole Creek

Location: This cause encompasses the area at the confluence of Blackwater. East of Franklin Sewage Disposal. South of US Hwy 58.

City / County: Isle Of Wight Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is not supporting based on E.coli data (5 violations / 35 observations) at station 5AWAC000.30.

Washole Creek
Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

0.55

#### Sources:

Source Unknown



Estuary

Reservoir

River

(Miles)

0.77

### Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-06-BAC Blackwater River-Lower Middle

Location: This cause encompasses the area south of the Isle of Wight and Suffolk line beginning at Rt 58 to downstream near South

Quav.

City / County: Isle Of Wight Co. Southampton Co.

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is not supporting based on E.coli data (4 violations / 35 observations) at DEQ (AQM) stations @

5ABLW009.80

Blackwater River-Lower Middle

Recreation (Sq. Miles) (Acres)

Escherichia coli - Total Impaired Size by Water Type:

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-01-BEN Somerton Creek

Location: This cause encompasses the area of Somerton Creek from 5 miles upstream from monitoring station (RM 10.36)

downstream to VA/NC state line.

City / County: Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on the Benthic Impairments at Station 5ASTN008.78. Station 5ASTN008.78 Benthic

IM [MI:F-'04].

Somerton Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

9.42

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-02-BAC March Swamp

Location: This cause encompasses entirety of March Swamp. Northeast of Factory Hill. Northern tributary to Somerton Creek.

City / County: Suffolk City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impairment is maintained based on the E. coli data exceedance of the swimming criteria indicator (1 violates /6 obs.) at Station 5AMAR001.65.

March SwampEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

7.71

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-02-DO March Swamp

Location: This cause encompasses entirety of March Swamp. Northeast of Factory Hill. Northern tributary to Somerton Creek.

City / County: Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on the depressed DO concentrations, impairment continued from 2004 IR. Data within assessment window is 1 viol /5 obs. No new data available.

March Swamp

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

7.71

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-02-PH March Swamp

Location: This cause encompasses entirety if March Swamp. Northeast of Factory Hill. Northern tributary to Somerton Creek.

City / County: Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The Aquatic Life Use is impaired based on depressed pH concentrations, impairment continued from 2004 IR. Station 5AMAR001.65 4 viol/ 11 obs.

March SwampEstuaryReservoirRiverAquatic Life(Sq. Miles)(Acres)(Miles)

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pH - Total Impaired Size by Water Type:

7.71

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



8.28

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-03-DO Chapel Swamp

Location: This cause encompasses the entirety of Chapel Swamp. Northern tributary of Somerton Creek. Located east of Cleopus.

City / County: Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

Aquatic Life Use impaired due to depressed pH & DO concentrations, DEQ Station @ 5ACHP002.03. The pH has 2 viol / 6 obs and the DO has 2 viol / 6 obs. Both are impaired with data from 2012. Previously there was a continued impairment for the same from 2004 IR.

Chapel Swamp

Reservoir River

Aquatic Life

(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

Final 2014



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-03-PH Chapel Swamp

Location: This cause encompasses the entirety of Chapel Swamp. Northern tributary of Somerton Creek. Located east of Cleopus.

City / County: Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

Aquatic Life Use impaired due to depressed pH & DO concentrations, DEQ Station @ 5ACHP002.03. The pH has 2 viol / 6 obs and the DO has 2 viol / 6 obs. Both are impaired with data from 2012. Previously there was a continued impairment for the same from 2004 IR.

Chapel Swamp

Aquatic Life

Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type:

8.28

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed



### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-04-BAC Unsegmented rivers in K38R

Location: This cause encompasses the Non-segmented areas of K38

City / County: Suffolk City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation is impaired with 2 viol / 6 obs for E. coli @ DEQ Station 5AJNS001.89.

Unsegmented rivers in K38R Estuary Reservoir River (Sq. Miles) (Acres) (Miles) Recreation 1.80

Escherichia coli - Total Impaired Size by Water Type:

Sources:

Source Unknown

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K38R-05-BAC Chapel Swamp

Location: This cause encompasses the Northern tributary of Somerton Creek. Located east of Cleopus. Entirety of swamp.

City / County: Suffolk City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

Recreation Use is impaired with 2 viol / 6 obs.

Chapel SwampEstuaryReservoirRiverRecreation(Sq. Miles)(Acres)(Miles)

Escherichia coli - Total Impaired Size by Water Type:

8.28

#### Sources:

Source Unknown

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K39L-01-HG Lake Drummond

Location: This cause encompasses the entirety of lake Drummond within the Great Dismal Swamp National Wildlife Refuge. Located

on City of Suffolk/City of Chesapeake boundary near NC state line.

City / County: Chesapeake City Suffolk City

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

The Fish Consumption Use is impaired based on the VDH fish consumption advisory for Bowfin and Chain Pickerel (issued 10/2003 & modified 7/27/05, 8/31/2007 recommending no more than two meals/month due to Hg reported in fish tissue).

Lake DrummondEstuaryReservoirRiverFish Consumption(Sq. Miles)(Acres)(Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type: 3,241.97

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K39L-01-PH Lake Drummond

Location: This cause encompasses the entirety of lake Drummond within the Great Dismal Swamp National Wildlife Refuge. Located

on City of Suffolk/City of Chesapeake boundary near NC state line.

City / County: Chesapeake City Suffolk City

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The Aquatic Life Use is impaired based on the pooled pH exceedance of the criteria for this parameter with a violation rate of 99.2% (121 violates/122 obs.).

Lake Drummond Estuary Reservoir River Aquatic Life (Sq. Miles) (Acres) (Miles)

pH - Total Impaired Size by Water Type: 3,241.97

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K39R-01-HG Dismal Swamp Canal & Feeder Ditch to Lake Drummond

Location: This cause encompasses the Dismal Swamp Canal from Deep Creek Locks to VA/NC state line and including Feeder Ditch

to Lake Drummond and unsegmented rivers in K39R.

City / County: Chesapeake City

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

The Fish Consumption Use is impaired based on the VDH fish consumption advisory for Bowfin and Chain Pickerel (issued 10/2003 & modified 7/27/05, recommending no more than two meals/month due to Hg reported in fish tissue).

Dismal Swamp Canal & Feeder Ditch to Lake Drummond

**Fish Consumption** 

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

13.21

#### Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K39R-02-HG Unsegmented rivers in K39R

Location: This cause encompasses the non-segmented rivers-feeder ditches within K39.

City / County: Chesapeake City Suffolk City

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

The Fish Consumption Use impairment is retained. Data from Station 5B-GDS-ED has an observed effect for FT. 05-OE,

FT Met-As Red Pickerel

Unsegmented rivers in K39R

**Fish Consumption** 

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

15.28

#### Sources:

Source Unknown



6.33

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K40R-04-HG Northwest River - Middle

Location: This cause encompasses the Northwest River from RM 16.63 (start of PWS) to RM 10.44. From start of PWS area,

upstream of Pine Grove Lane, downstream to Indian Creek confluence.

City / County: Chesapeake City

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

The Fish Consumption Use is impaired based on FT data collected at Station 5BNTW011.90. The mercury Fish Tissue Value was violated in 2007 (07-IM- FT\_Met Hg Largemouth Bass & Bowfin).

Northwest River - Middle

Estuary Reservoir River
Fish Consumption

(Sq. Miles) (Acres) (Miles)

Mercury in Fish Tissue - Total Impaired Size by Water Type:

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K40R-09-BAC Indian Creek tributary to Northwest River

Location: From the St. Brides Rd. crossing downstream to the confluence with the Northwest River. Located southeast of Saint Brides.

City / County: Chesapeake City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E.coli data collected at station 5BIND001.15 with 7 viol / 31 obs.

Indian Creek tributary to Northwest River Estuary Reservoir

Escherichia coli - Total Impaired Size by Water Type:

(Miles) 3.46

(Acres)

(Sq. Miles)

River

Sources:

Recreation

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-01-BEN Pocaty River

Location: This cause encompasses the Pocaty River and selected tribs. from headwaters at mile 3.92 to confluence with North

Landing River at mile 0.00.

City / County: Chesapeake City Virginia Beach City

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use impairment is retained based on benthic impairment. Data collected at station 5BPCT002.16 MI: S-03 and

VI: F-03.

Pocaty River

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type: 7.43

Bentinc-Macronivertebrate bloassessments - rotal impaned Size by Water Type

Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-01-DO Pocaty River

Location: This cause encompasses the Pocaty River and selected tribs. from headwaters at mile 3.92 to confluence with North

Landing River at mile 0.00.

City / County: Chesapeake City Virginia Beach City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on low dissolved oxygen concentrations. The cause of the depressed dissolved oxygen concentrations is suspected to be naturally occurring. DO violates 15/35 obs at Station 5BPCT001.79

Pocaty River

Estuary Reservoir River

Aquatic Life (Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 7.43

Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses

Needed

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-04-BAC North Landing River - Middle

Location: This cause encompasses the area east of Fentress Landing Field between confluence with West Neck Creek and Pocaty

River.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E. coli data exceedance of the swimming criteria indicator collected at Station 5BNLR010.75 with 2 violates out of 9 obs. In 2008 2/10 violate. Need additional data.

North Landing River - Middle

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

1.38

#### Sources:

Source Unknown



#### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-05-PCB West Neck Creek - Middle

Location: This cause encompasses the area from southside of Princess Anne road crossing (RM 6.20) downstream to widening of

creek (RM 3.10) approx. 0.55 mi downstream of Indian River Road crossing.

City / County: Virginia Beach City

Use(s): Fish Consumption

Cause(s) /

VA Category: PCB in Fish Tissue / 5A

The Fish Consumption Use is impaired based on Fish Tissue data collected at Station 5BWNC003.65. 07-IM, FT\_PCB White

Catfish, Carp & FT-OE, Met\_As Carp.

West Neck Creek - Middle

Estuary (Sq. Miles)

PCB in Fish Tissue - Total Impaired Size by Water Type:

(Miles) 2.74

River

Reservoir

(Acres)

#### Sources:

Source Unknown

**Fish Consumption** 



### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-09-BAC Pocaty River

Location: This cause encompasses Pocaty River and selected tribs. from headwaters at mile 3.92 to confluence with North Landing

River at mile 0.00.

City / County: Chesapeake City Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E.coli data (6/33) at DEQ (AQM) station @ 5BPCT001.79.

Pocaty River

Estuary Reservoir River

(Sq. Miles) (Acres) (Miles)

Escherichia coli - Total Impaired Size by Water Type:

7.43

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-12-BEN Unnamed Trib to Milldam Creek

Location: This cause encompasses the area from the confluence with Milldam Creek to Crags Cswy.

City / County: Virginia Beach City

Use(s): Aquatic Life

Cause(s) /

**Aquatic Life** 

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

Aquatic Life Use is not supported based on benthic data from Station 5BXAT000.30. Benthic IM [VI:S&F-09 & S-10; MI:F-10]

Unnamed Trib to Milldam Creek

Estuary (Sq. Miles) Reservoir (Acres)

River (Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

0.66

#### Sources:

Source Unknown

Final 2014



### Chowan River and Dismal Swamp Basins

Cause Group Code: K41R-12-DO Unnamed Trib to Milldam Creek

Location: This cause encompasses the area from the confluence with Milldam Creek to Crags Cswy.

City / County: Virginia Beach City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5A

Aquatic Life Use is not supported based DO data from Station 5BXAT000.30, DO with 4 viol / 4 obs.

Unnamed Trib to Milldam Creek

Aquatic Life

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type:

0.66

#### Sources:

Source Unknown



Estuary

River

(Miles)

Reservoir

(Acres)

#### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-03-BAC Hell Point Creek - Lower (at mouth)

Location: This cause encompasses the area at intersection of creek and canal upstream of monitoring station and ends at mouth,

confluence with North Bay.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

The Recreation Use is impaired based on Enterococcus data that exceed the swimming criteria indicator with 4 violate/ 31 obs.

Hell Point Creek - Lower (at mouth)

Recreation (Sq. Miles)

Enterococcus - Total Impaired Size by Water Type: 0.015

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-04-BAC Muddy Creek

Location: This cause encompasses area at confluence with Ashville Bridge Creek and ends at the mouth, the confluence with North

Зау.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

The Recreation Use is impaired based on Enterococcus data that exceed the swimming criteria indicator (10 violate/ 35 obs.).

Muddy Creek

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.026

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-05-BAC Beggars Bridge Creek

Location: This cause encompasses the area southeast of Dawley Corners, tributary to Shipps Bay. Segment begins at the confluence

of numerous unnamed tributaries (RM 1.34) near Dawley Corners and extends downstream to the mouth at the confluence

with Shipps Bay.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

The Recreation Use is impaired based on Enterococcus data that exceed the swimming criteria indicator (11 violates/ 35 obs.)

Beggars Bridge Creek

Reservoir River

(Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.042

Sources:

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-06-BAC Ashville Bridge Creek - Lower

Location: This cause encompasses the lower portion of Ashville Bridge Creek, between Hell Point and Muddy Creeks.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

The Recreation Use is impaired based on the Enterococci data that exceed the swimming criteria indicator at Station 5BASH002.20 with 2 violates/ 10 obs.

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Ashville Bridge Creek - Lower

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.016

Sources:

Recreation

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-06-DO Ashville Bridge Creek - Lower

Location: This cause encompasses the lower portion of Ashville Bridge Creek, between Hell Point and Muddy Creeks.

City / County: Virginia Beach City

Use(s): Aquatic Life

Cause(s) /

VA Category: Oxygen, Dissolved / 5C

The Aquatic Life Use is impaired based on low dissolved oxygen concentrations 2 violates/ 15 obs. Source of low dissolved oxygen is probably natural conditions.

Ashville Bridge Creek - Lower

**Aquatic Life** 

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

Oxygen, Dissolved - Total Impaired Size by Water Type: 0.016

Sources:

**Natural Sources** 

Source Unknown



### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-06-PH Ashville Bridge Creek - Lower

Location: This cause encompasses the lower portion of Ashville Bridge Creek, between Hell Point and Muddy Creeks.

City / County: Virginia Beach City

Use(s): Aquatic Life

Cause(s) /

VA Category: pH / 5C

The Aquatic Life Use impairment is retained based on pH concentrations from 2005-2006 with 1 viol / 15 obs. New data is needed to delist pH. Previous listing 4 violates/ 36 obs.

Ashville Bridge Creek - Lower

**Aquatic Life** 

Estuary (Sq. Miles)

Reservoir (Acres)

River (Miles)

pH - Total Impaired Size by Water Type:

0.016

#### Sources:

Natural Conditions - Water Quality Standards Use Attainability Analyses Needed

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### Chowan River and Dismal Swamp Basins

Cause Group Code: K42E-10-BAC Hell Point Creek - Upper

Location: This cause encompasses the area west of Sandbridge. Segment from headwaters downstream to RM 0.73, intersection of

creek with canal near mouth.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

The Recreation Use is impaired based on Enterococci data that exceed the swimming criteria indicator (8 violate / 34 obs.).

Hell Point Creek - Upper

Recreation

Estuary Reservoir River
(Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 0.030

Sources:

Municipal Point Source

Discharges

Source Unknown



### Chowan River and Dismal Swamp Basins Cause Group Code: K42E-11-BAC Back Bay

Location: This cause encompasses the southern section of main Back Bay waters adjacent to Currituck County.

City / County: Virginia Beach City

Use(s): Recreation

Cause(s) /

VA Category: Enterococcus / 5A

The Recreation Use is not supporting based on Enterococcus bacteria data (4 viol / 32 obs) at 5BBKY000.99.

Back Bay Estuary Reservoir River (Sq. Miles) (Acres) (Miles)

Enterococcus - Total Impaired Size by Water Type: 1.663

Sources:

Source Unknown